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How Good Communication & Teamwork
turned a
“Supplemental Environmental Project”
into a
“Successful Environmental Project”

Rex Coffman


Environmental Manager

TXI Texas Cement & Expanded Shale & Clay



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- In September of 1997, The USEPA Region 6 TSCA Enforcement Group issued a Complaint & Notice of Opportunity (NOV) against TXI for alleged marking & recordkeeping problems at the TXI Midlothian Cement Plant.
- The plant had recently undergone an inspection by the Texas Department of Health, and the Region 6 Office, in an oversight mode, issued the NOV.
- Upon receipt of the NOV, TXI contacted the Region 6 Offices and sought guidance regarding resolution of the matter.

 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

September 10, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Robert D. Rogers
Chief Executive Officer
Texas Industries, Inc.
1341 W. Mockingbird Lane, Suite 700W
Dallas, TX 75247

RE: Texas Industries, Inc.
d/b/a Texas Industries Cement Division
Midlothian Cement Plant
Midlothian, Texas
TSCA Docket Number VI-700C(P)


Dear Mr. Rogers:

Enclosed herein is a Complaint and Notice of Opportunity for Hearing (Complaint) filed against Texas Industries, Inc. (TXI) d/b/a Texas Industries Cement Division, Midlothian Cement Plant, Midlothian, Texas, pursuant to the Toxic Substances Control Act as amended (TSCA). It is alleged in the Complaint that TXI, Midlothian, Texas, failed to comply with the provisions of TSCA, as is more specifically set forth in the Complaint.

We call your attention to that part of the Complaint entitled "Opportunity to Request a Hearing." TXI, Midlothian, Texas, is required to respond to this Complaint within twenty (20) days of receipt or the proposed civil penalty shall become due and payable sixty (60) days after the final order is issued upon default. Note that for each day a violation cited in the Complaint continues, this constitutes a new violation for which additional penalties may be imposed.

For additional information or clarification of any issue regarding this matter, you may contact Ms. Lou Roberts, Environmental Protection Specialist (6EN-AT), EPA Region 6, 1445 Ross Avenue, Dallas, TX 75202-2733, or call (214) 665-7579.

We urge your prompt attention to this matter.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

Enclosures

cc: William Brown, TXI, Midlothian Cement Plant
John Lyles, Texas Department of Health
Dan Pearson, Texas Natural Resource
Conservation Commission

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- An Order was issued, and negotiations between TXI & the Region 6 Office began.
- TXI sought to work with Region 6 to completely rid TXI Midlothian Cement of the remaining PCB-containing electrical equipment.
- 11 PCB-transformers were in place being used at the plant at the time the NOV was issued.
- Completion of a “Supplemental Environmental Project” (SEP) as a part of the NOV process was investigated by TXI & Region 6.
- Issues revolving around implementation of the SEP included:
 - Timing for completion of the project;
 - Associated costs of the total removal;
 - Electrical Equipment included in the SEP; &
 - Fines, reporting and oversight.

FILED
00 MAR 28 1997
REGIONAL HEARING CLERK
EPA REGION VI

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 6
DALLAS, TEXAS
BEFORE THE ADMINISTRATOR

IN THE MATTER OF:

TEXAS INDUSTRIES, INC. d/b/a
TEXAS INDUSTRIES CEMENT DIV
MIDLOTHIAN CEMENT PLANT
MIDLOTHIAN, TEXAS

RESPONDENT

§
§
§
§ TSCA DOCKET NO. VI-700C(P)
§
§
§
§

CONSENT AGREEMENT AND CONSENT ORDER

Complainant, the United States Environmental Protection Agency (EPA), having filed the Complaint and Notice of Opportunity for Hearing (Complaint) on September 10, 1997, and the First Amended Complaint and Notice of Opportunity for Hearing (First Amended Complaint) on February 2, 1998, against Respondent (Texas Industries, Inc., d/b/a Texas Industries Cement Division, Midlothian Cement Plant, Midlothian, Ellis County, Texas), the Parties herein; and

Complainant and Respondent having agreed that settlement of this matter is in the public interest, and that entry of this Consent Agreement and Consent Order without further litigation is the most appropriate means of resolving this matter;

NOW, THEREFORE, before the taking of any testimony, upon the pleadings, without adjudication of any issue of fact or law, and upon consent and agreement of the Parties, it is hereby Ordered and Adjudged as follows:

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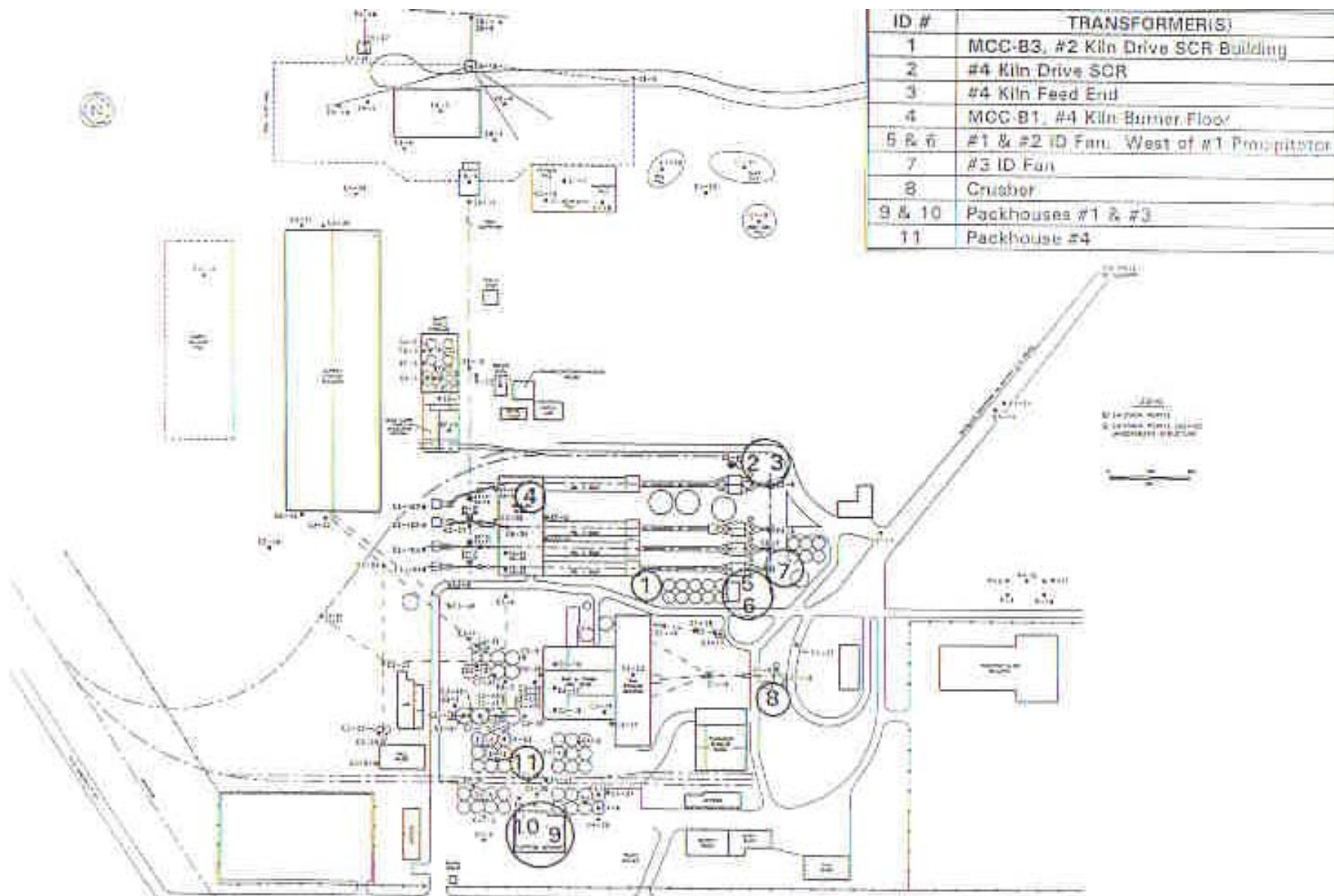
- Timing was likely the biggest issue associated with entering into the SEP.
- The USEPA typically likes to see these projects completed within a year after signing on to perform them.
- More time was necessary due to the large equipment in need of removal as well as due to the location of the equipment in a fully operational plant that had been in operation for approximately 40 years.
- 11 PCB-transformers were located throughout the plant. These transformers were integrated into one of four operating rotary kiln systems at the plant.
- Of the 11 PCB-transformers, only one was “out in the open” where extensive work including taking the kilns offline was not necessary.

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- TXI Midlothian Cement's first wet-process cement kiln was installed in 1960.
 - Since then, the plant has been expanded in 1963, 1967, 1972 and again in 1998 (with a dry-process kiln).
 - The most recent expansion occurred simultaneously with implementation of this SEP.
 - This created some difficulty with the SEP implementation.
-
- One of the initial issues that was negotiated was the timing.
 - Ms. Lou Roberts was instrumental in helping convince the USEPA Leadership that a longer time period was indeed appropriate given the special circumstances that revolved around the project.

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9 & 10

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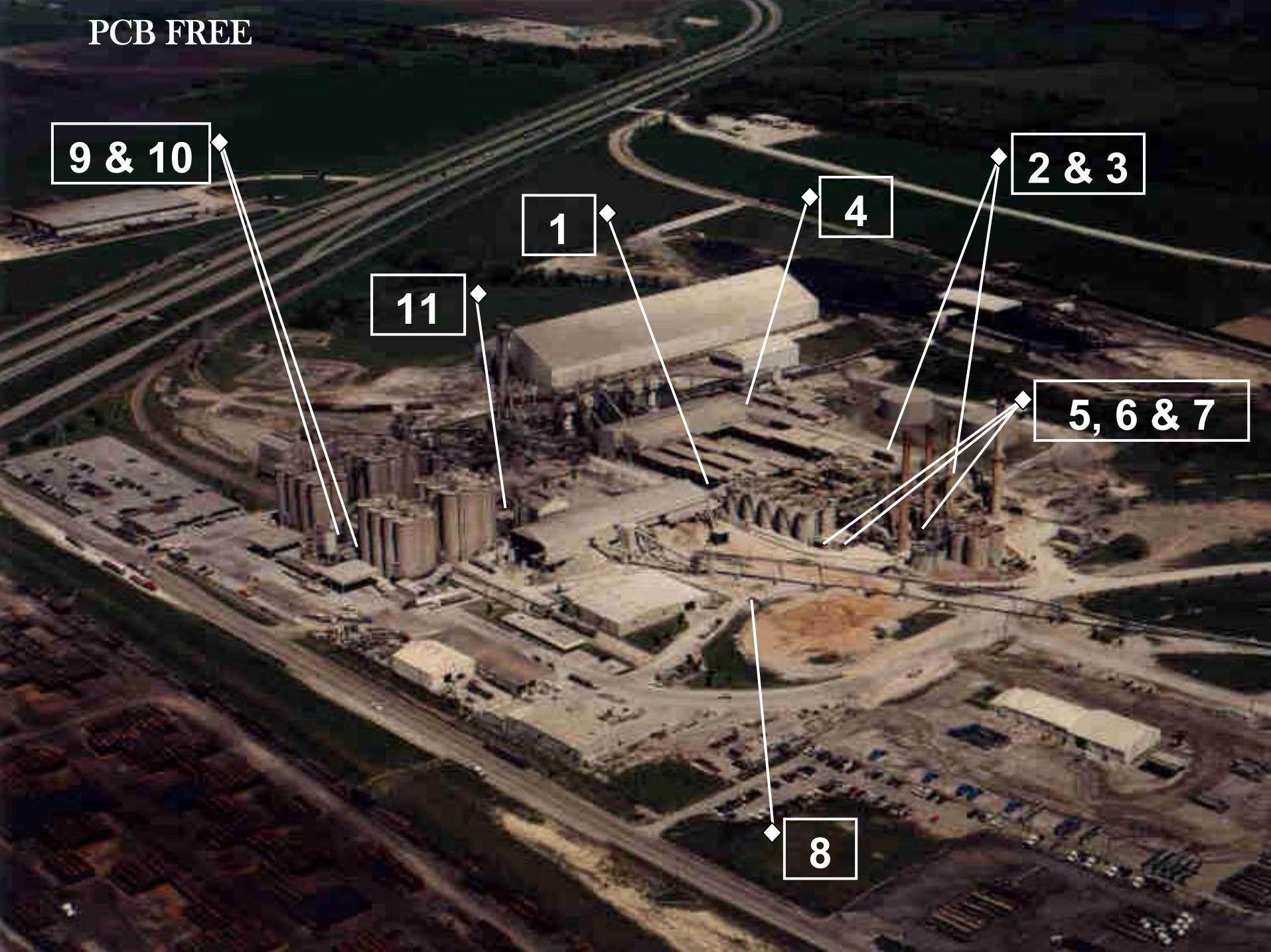
11

4

2 & 3

5, 6 & 7

8

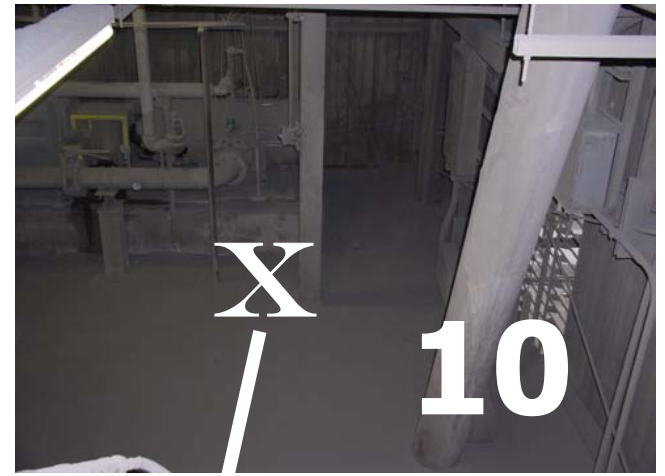
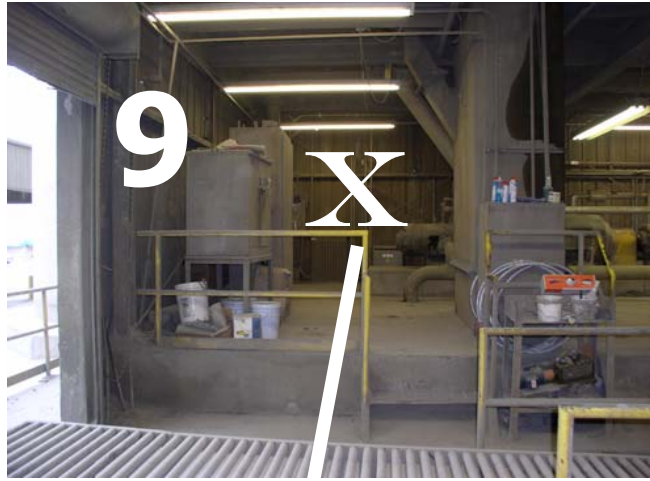


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- Next to the timing associated with the removal and proper disposal of the 11 PCB-transformers, costs associated with the program was probably the biggest issue.
- The total fine originally calculated to approximately \$30,000. This fine was initially reduced in a Settlement Conference to \$13,000, and TXI eventually paid a fine of \$2,500 along with implementing the SEP.
- Replacement of all remaining PCB-transformers would cost much more than merely paying the fine and continuing operations with the PCB-containing electrical equipment in place.
- Coupled with this was the Kiln 5 expansion which began in 1998. This expansion more than doubled the plant's production capacity without additional emissions.
- The post-expansion operational configuration meant that the possibility existed that removed equipment would not necessarily be replaced.

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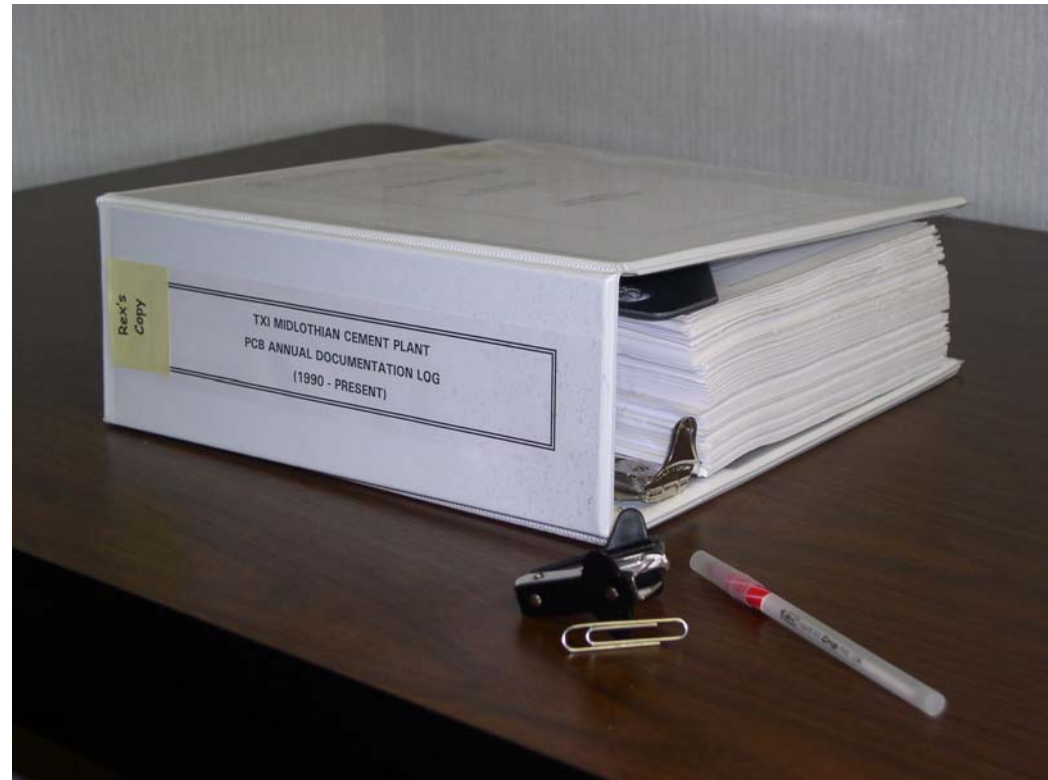
- Region 6 was very understanding in this regard. They saw the wisdom in the fact that the primary issue encompassed with the SEP dealt with **Removal & Proper Disposal** of the existing PCB-transformers at the plant, **NOT** with installation of replacement non-PCB electrical equipment.
- TXI & Region 6 therefore agreed to consider only removal and proper disposal of the 11 PCB-transformers at the plant.
- Costs of the fully implemented SEP were estimated at \$185,305. The final costs billed totaled \$281,547.

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- The final issues were the likely the easiest issues to come to terms on. It was agreed that:
 - ALL remaining PCB-containing electrical equipment was included in the SEP and would be removed.
 - Recordkeeping and reporting were established in a SEP proposal designed to match up with the PCB recordkeeping & reporting regulations, with regularly scheduled status reports. These were approved and the proposal was included as an attachment to the finally effective Consent Agreement & Consent Order.

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- TXI additionally developed a more effective manner of recordkeeping in response to the NOV.
- This was to ensure that ALL records regarding PCBs would be maintained in a single notebook for future inspections.
- TXI developed forms based on the required information described in the rules and included all previous records into the format as a part of the SEP.



PCB ANNUAL DOCUMENT LOG

Calendar Year 1997

TXI

Midlothian Cement Manufacturing Plant

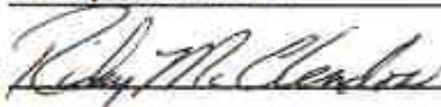
245 Ward Road

Midlothian, Texas 76065

EPA Identification Number : TXD007349327

Prepared by : Ricky McClendon

Signature :



Title : Electrical Maintenance Manager

Date : December 31, 1997

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PCB TRANSFORMERS

A. In service at the END of the Calendar Year (including those in storage for future use) :

Serial Number	Manufacturer	Physical Location	Dielectric Tradename	ppm PCB	Date placed in Service	kg weight of PCB
5739645	A-C	MCC-B3, #2 Kiln Drive Scr Building	Chlorextol	> 60,000	1962	1542
X546521	GE	#4 Kiln Drive Scr	Pyranol A13838	> 60,000	1972	1370
5739646	A-C	#4 Kiln Feed End	Chlorextol	> 60,000	1972	2245
5739644	A-C	MCC-B1, #4 Kiln Burner Floor	Chlorextol	> 60,000	1972	1542
3287688	A-C	#1 ID Fan, West of #1 Precipitator	Chlorextol	> 60,000	1960	1683
E-888793A	GE	#2 ID Fan, West of #1 Precipitator	Pyranol 1470	> 60,000	1962	1043
18-82595-2	A-C	#3 ID Fan	Askarel	> 60,000	1967	850
3287672	A-C	Crusher	Chlorextol	> 60,000	1980	1497
3287689	A-C	Packhouse #1	Chlorextol	> 60,000	1960	1848
3811503	A-C	Packhouse #3	Chlorextol	> 60,000	1967	1304
5742034	A-C	Packhouse #4	Chlorextol	> 60,000	1972	1880

a. Total kilogram weight of PCB in transformers in service : 16,784 kg

b. Total number of PCB transformers in service : eleven (11)

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PCB TRANSFORMER QUARTERLY INSPECTION RECORD First Quarter, 2001

DATE	SERIAL NUMBER	Manufacturer	PHYSICAL LOCATION	TYPE OF PCB OR TRANSFORMER	IDENTIFICATION OF LEAKS ? Yes No	INSPECTED BY
01/11/01	5739645	A-C	MCC-B3, #2 KILN DRIVE SCR BUILDING	CHLOREXTOL	✓	FF
01/11/01	5739646	A-C	#4 KILN FEED END	CHLOREXTOL	✓	FF
01/14/01	5739644	A-C	MCC-B1, #4 KILN BURNER FLOOR	CHLOREXTOL	✓	FF
01/24/01	18-82555-2	A-C	#3 ID FAN	ASKAREL	✓	FF

NOTES / COMMENTS:

NO LEAKS OR PROBLEMS NOTED. MINOR HOUSEKEEPING PROBLEMS (LIGHTS/HAIR)
GROUNDING TRANSFORMERS, BUT NO PROBLEMS NOTED.

Relief 01/24/01

PCB TRANSFORMER QUARTERLY INSPECTION RECORD Second Quarter, 2001

DATE	SERIAL NUMBER	Manufacturer	PHYSICAL LOCATION	TYPE OF PCB OR TRANSFORMER	IDENTIFICATION OF LEAKS ? Yes No	INSPECTED BY
03/01/01	5739645	A-C	MCC-B3, #2 KILN DRIVE SCR BUILDING	CHLOREXTOL	✓	RM
03/01/01	5739646	A-C	#4 KILN FEED END	CHLOREXTOL	✓	RM
03/01/01	5739644	A-C	MCC-B1, #4 KILN BURNER FLOOR	CHLOREXTOL	✓	RM
03/01/01	18-82555-2	A-C	#3 ID FAN	ASKAREL	✓	RM

NOTES / COMMENTS:

#3 ID FAN REMOVED FROM SERVICE ON 3/20/01
NO LEAKS FOUND.

RM.

PCB TRANSFORMER INSPECTION RECORD, PAGE 2

PCB TRANSFORMER QUARTERLY INSPECTION RECORD Third Quarter, 2001

DATE	SERIAL NUMBER	Manufacturer	PHYSICAL LOCATION	TYPE OF PCB OR TRANSFORMER	IDENTIFICATION OF LEAKS ? Yes No	INSPECTED BY
	5739645	A-C	MCC-B3, #2 KILN DRIVE SCR BUILDING	CHLOREXTOL		
	5739646	A-C	#4 KILN FEED END	CHLOREXTOL		
	5739644	A-C	MCC-B1, #4 KILN BURNER FLOOR	CHLOREXTOL		
	18-82555-2	A-C	#3 ID FAN	ASKAREL		

NOTES / COMMENTS:

NO TRANSFORMERS IN SERVICE PAST 6/14/01
NO LEAKS NOTED UPON REMOVAL.

Relief 6/24/02

PCB TRANSFORMER INSPECTION RECORD, PAGE 3

PCB TRANSFORMER QUARTERLY INSPECTION RECORD Fourth Quarter, 2001

DATE	SERIAL NUMBER	Manufacturer	PHYSICAL LOCATION	TYPE OF PCB OR TRANSFORMER	IDENTIFICATION OF LEAKS ? Yes No	INSPECTED BY
	5739645	A-C	MCC-B3, #2 KILN DRIVE SCR BUILDING	CHLOREXTOL		
	5739646	A-C	#4 KILN FEED END	CHLOREXTOL		
	5739644	A-C	MCC-B1, #4 KILN BURNER FLOOR	CHLOREXTOL		
	18-82555-2	A-C	#3 ID FAN	ASKAREL		

NOTES / COMMENTS:

NO TRANSFORMERS IN SERVICE PAST 6/14/01
NO LEAKS NOTED UPON REMOVAL.

Relief 6/24/02

PCB TRANSFORMER INSPECTION RECORD, PAGE 4

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- Ricky McClendon, TXI Electrical Maintenance Manager, planned ahead for each removal by constructing pads and other construction activity ahead of time for quick, efficient removal.
- TXI's primary plan was to remove all PCB-transformers from the kiln lines while they were down for maintenance. However, TXI additionally negotiated and obtained the right to move quickly to take any PCB-transformers out of service if a kiln went down unexpectedly.
- Region 6 was very accommodating in this regard. For the most part, removal went according to planned downtime. However, there were a couple of times when TXI called Region 6 to let them know we had an opportunity to move forward, and they worked diligently with us to authorize the movement & to ensure that we had the capability to remove equipment at once.

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- As it turned out, the only PCB-transformer removal that TXI documented with pictures was the very last one located at the Kiln 4 Burner Floor.
- Although the Kiln 4 Burner Floor PCB-transformer was not the most difficult to remove, it also presented logistical & safety difficulties.
- In order to remove the PCB-transformer, it was necessary to roll it across the burner floor to an access door where a fork lift could pick it up for removal.
- As was the case with all removal activities, all PCB oil was removed from the unit and placed inside drums for short term storage and shipment.
- Safety issues associated with removal of the Kiln 4 Burner Floor PCB-transformer included the requirement for rolling the transformer approximately 30 feet to an access door for removal by forklift using steel rods as the rollers. This was necessary because the access to the transformer location on the Kiln 4 Burner Floor would not allow for movement using heavy equipment like cranes, or a forklift.



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June 14, 2001



PCB FREE - June 14, 2001



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- TXI additionally made preparations for temporarily storing the PCB oils and transformer carcasses prior to shipment by an **AUTHORIZED** PCB transporter.
- Storage was always done in a unit specially designed for management of PCBs in accordance with the regulations ... a structure containing a roof and sides with flooring consisting of a concrete pad that is curbed for secondary containment that is free of cracks and gaps.
- In addition, more frequent inspections are triggered whenever PCBs are stored prior to shipment for proper disposal. Monthly inspections must be performed in addition to the quarterly inspections that are required when PCB-transformers remain in use.

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Monthly inspections require similar information as the Quarterly Inspections:

- 1. Unique Item Serial Number**
- 2. Manufacturer**
- 3. Location of Storage**
- 4. PCB Dielectric type**
- 5. Unit of Storage
(drum, overpack, etc.)**
- 6. Inspection Date**
- 7. Inspector**
- 8. Results of the inspection**

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So, what do you think

...

Is TXI

“PCB FREE”

yet?



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July 10, 2001

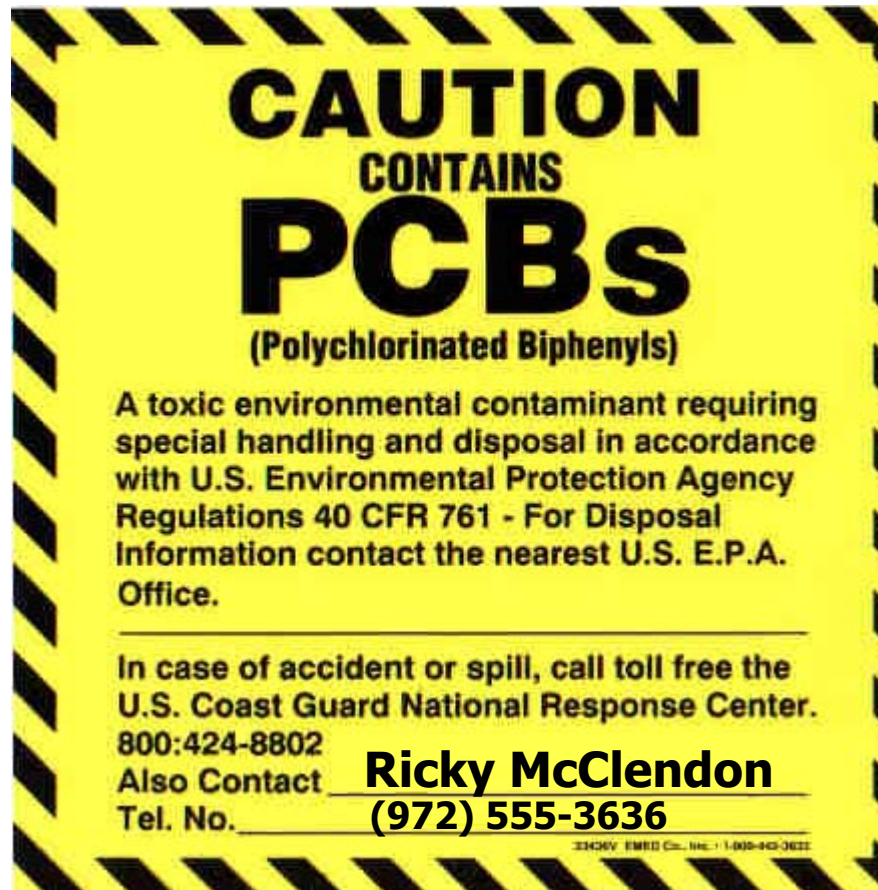
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July 10, 2001



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Well, how about now ...

Is TXI

“PCB FREE”?

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Not quite,
we still have one last,
& VERY important
issue to address ...

PCB ANNUAL DOCUMENT LOG

Calendar Year 2001

TXI

Midlothian Cement Manufacturing Plant

245 Ward Road

Midlothian, Texas 76065

EPA Identification Number : TXD007349327

Prepared by : Ricky McClendon

Signature : *Ricky McClendon*

Title : Electrical Maintenance Manager

Date : June 30, 2002

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PCB TRANSFORMERS

A. In service at the END of the Calendar Year (including those in storage for future use):

Serial Number	Manufacturer	Physical Location	Dielectric Transformer	ppm PCB	Date placed in Service	kg weight of PCB

a. Total kilogram weight of PCB in transformers in service : 0 kg

b. Total number of PCB transformers in service : Zero (0)

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- Obviously, this was a huge & innovative undertaking.
- A lot of money, time & effort was spent, but the ultimate outcome was well worth it.
- TXI Midlothian Cement has been **PCB FREE** now since the Summer of 2001.
- This effort could not have occurred without the vision, diligence and very hard work of a team of professionals from the USEPA & TXI working together ...

PCB FREE

... to turn a
Supplemental Environmental Project



into a



Successful Environmental Project

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Questions?